



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/700,518

11/05/2003

Michihiro Fujiyama

032085

5923

38834

7590

01/02/2009

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

ROBERTS, JESSICA M

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

01/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/700,518	Applicant(s) FUJIYAMA ET AL.	
	Examiner JESSICA ROBERTS	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/24/2008 has been entered.

Acknowledgment of Amendments

2. Applicant's arguments with respect to claim 10/24/2008 have been considered but are moot in view of the new ground(s) of rejection.

Specification

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

5. Regarding claim 7, applicant has claimed a "frame renewer"; Applicant does not have support for this claim limitation in the specification or the disclosure.

6. Further regarding claim 7, applicant has claimed "a frame currently being reproduced at an accepting time of the operation to a frame to be subsequently reproduced" and "a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced with a renewing timing that the renewing interval between the frame currently being reproduced and a frame to be subsequently reproduced becomes equal to the renewing interval changed by said changer". Applicant does not have support for the claim limitations in the specification or the disclosure.

7. Claim 8 fails to remedy the issue as stated in claim 7, thus claim 8 is too rejected as failing to comply with the written description requirement.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 7, it is not clear or further outlined in the specification as to what is to be considered as "a frame renewer". As best understood by the examiner, at this junction, a frame renewer is an image or frame reproducer.

11. Further regarding claim 7, it is not clear or further outlined in the specification a frame currently being reproduced at an accepting time of the operation to a frame to be

subsequently reproduced. As best understood by the examiner, this is merely the reproduction of sequential frames.

12. Further regarding claim 7, it is not clear or further outlined in the specification a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced with a renewing timing that the renewing interval between the frame currently being reproduced and a frame to be subsequently reproduced becomes equal to the renewing interval changed by said changer. As best understood by the examiner, this is merely sequentially reproducing a set of frames, while maintaining the renewal period equal to a period of reproduction.

Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 6 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example there is no device recited within the claims to accomplish the method as claimed.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al., US-7,177,523 and in view of Okabayashi et al., US-6, 751,399 and view of Ohmori et al., US-6,678,397.

4. Regarding **claim 1**, Matsumoto teaches An image processing apparatus which sequentially reproduces a plurality of screens of still image signals recorded in a recording medium, comprising: a timer for measuring an image reproducing period (column 5 line 9-14, and 37-46); a first reproducer for reproducing one screen of still image signal from said recording medium every time that a time of said timer elapses

Art Unit: 2621

(column 5 line 37-46 and fig. 1:5); a second reproducer for reproducing one screen of still image signal from said recording medium (The memory card 7 is a recording medium, and the present invention can be applied not only for the memory card 7, which employs fixed memory as the main storage medium, but also another recording medium, such as an optical or magnetic disk or a magnetic tape (column 3 line 43-47. Further Matsumoto discloses reproducing one image every 500 msec, every 500 msec, every 250 msec, and every 50 msec (column 5 line 37 to column 6 line 51), without waiting for a lapse of said timer, every time that an image renewal instruction is issued (Matsumoto discloses the for the image search operation during which image feeding, at a corresponding predetermined time intervals, is automatically continued by depressing and holding down an image feed switch, the reproduction of an image depends merely upon the elapse of a specific time interval (column 1 line 28-33. It should be noted that a time interval would consist of starting at zero and ending at an arbitrary end. Therefore, it is clear to the examiner that Matsumoto more than fairly suggest to not waiting on the lapse of a timer, which reads upon the claimed limitation) ; a restarter for restarting said timer every time that said one screen of still image signal is reproduced (column 6 line 52 to column 7 line 8); and an issuer for issuing the image renewal instruction in response to the period changing instruction; wherein said issuer issues the image renewal instruction when the period changing instruction is for shortening the image reproducing period (A control step of , in accordance with the number of images recorded on the recording medium,changing the interval at which displayed images is renewed at the renewal step, column 2 line 28-32. And a system

controller, column 3 line 57-60 and column 4 line 57-58.) Matsumoto is silent in regards to a changer for changing the image reproducing period in response to a period changing instruction and wherein said issuer stops issuing the image renewal instruction when the period changing instruction is for shortening the image reproducing period and when the period changing instruction is for extending the image reproducing period.

5. However, Okabayashi teaches a changer for changing the image reproducing period in response to a period changing instruction (reproduction speed setting section fig. 3); and an issuer for issuing the image renewal instruction in response to the period changing instruction (system controller, column 3 line 57-60 and column 4 line 57-58) and wherein said issuer stops issuing the image renewal instruction when the period changing instruction is for shortening the image reproducing period and when the period changing instruction is for extending the image reproducing period (still picture table. Further Okabayashi teaches a still-picture reproduction period setting section that sets a reproduction period for the still picture image information, and the reproducing section reproduces the identified frame of the still picture image information repetitively for the reproduction period set by the reproduction setting section, column 2 line 56-65. Okabayashi teaches a reproduction period setting section sets the period for reproducing an image, and Matsumoto discloses reproducing an image depends merely upon the elapse of a specific time interval, it is clear to the examiner that reproducing apparatus of Matsumoto, now incorporating the reproduction period setting section, has the claimed limitations.

6. Therefore, it would have been obvious at the time of the invention to combine the teachings of Matsumoto with the teachings of Okabayashi for providing an improved image recording and reproducing device which permits efficient use of an image storage area, and which can optimally reproduce both dynamic picture image and still picture image information stored together in a mixed manner without requiring complex management (column 1 line 64 to column 2 line 2).

7. Matsumoto (modified by Okabayashi) as a whole is silent in regards to such that only in a case of shortening the image reproducing period, the image is renewed in response to the issue of the image renewal instruction.

8. However, Ohmori teaches where it is taken into consideration to reduce time to reproduce an image which is recorded in only the large-capacity recording device 15 with a slow reproduction speed, column line .

9. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Ohmori with Matsumoto (modified by Okabayashi) in order to reduce time to search and reproduce image data stored in a large-capacity image recording device, (Ohmori column 2 line 18-21).

10. Regarding **claim 3**, Matsumoto discloses the issuer issues the renewal instruction (column 3 line 57-60 and column 4 line 37-46). However Matsumoto is silent in regards to an image processing apparatus according to claim 2, further comprising a dial for inputting the changing instruction, wherein said issuer stops issuing the image renewal instruction when a reproducing direction of said plurality of screens of the still image signals is a first reproducing direction and a rotating direction of said dial is a first

rotating direction, or when a reproducing direction of said plurality of screens of the still image signals is a second reproducing direction and the rotating direction of said dial is a second rotating direction.

11. However, Okabayashi teaches An image processing apparatus according to claim 2, further comprising a dial for inputting the changing instruction, wherein said issuer stops issuing the image renewal instruction when a reproducing direction of said plurality of screens of the still image signals is a first reproducing direction and a rotating direction of said dial is a first rotating direction, or when a reproducing direction of said plurality of screens of the still image signals is a second reproducing direction and the rotating direction of said dial is a second rotating direction (Okabayashi teaches a still picture reproduction period setting section that sets a reproduction period for the still picture image information(column 2 line 56-64). Further disclosed is operating section10 includes various switches, volume controls, LEDs (Light Emitting Diodes), and a fader, and section10 is used for selecting and setting various operation conditions of the device, such as start/stop recording and reproduction modes and recording and reproduction speeds of still and dynamic image (column 5 line 10-16 and fig. 2). Also, the recording operation section and speed setting sections correspond to the operational entry functions of the operating section, CPU, etc. Tables stored are stored in the ROM (column 5 line 54 to column 6 line 3). It is clear to the examiner that since the operating section contains a dial (volume control) for changing the reproducing speed, and the reproduction sections refers to the still picture table to obtain parameters

Art Unit: 2621

necessary for reproduction, that if the reproduction speed or direction is changed, there would be no renewal instruction, which reads upon the claimed limitation).

12. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsumoto with the teachings of Okabayashi for providing an improved image recording and reproducing device which permits efficient use of an image storage area, and which can optimally reproduce both dynamic picture image and still picture image information stored together in a mixed manner without requiring complex management (column 1 line 64 to column 2 line 2).

13. Regarding **claim 4**, Matsumoto teaches an image processing apparatus according to claim 3, wherein the first reproducing direction is a forward reproducing direction (Matsumoto 4 line 16-20), the second reproducing direction is a reverse reproducing direction (column 4 line 21-26). Matsumoto is silent in regards to the first rotating direction is a counterclockwise direction, and the second rotating direction is a clockwise direction.

14. However, Okabayashi teaches the operating section includes various switches, volume controls, LEDs (Light Emitting Diodes) and a fader, and the section is used for selecting and setting various operational conditions of the device, such as start/stop of recording and reproduction modes and recordings and reproduction speeds of still and dynamic pictures (column 5 line 10-17, fig. 2). It is implied from figure 2:10b that the volume controls would necessitate rotation in both clockwise and counter clockwise direction.

15. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Matsumoto with the teachings of Okabayashi for providing an improved image recording and reproducing device which permits efficient use of an image storage area, and which can optimally reproduce both dynamic picture image and still picture image information stored together in a mixed manner without requiring complex management (column 1 line 64 to column 2 line 2).

16. Regarding **claim 5 (1)**, Matsumoto (modified by Okabayashi and Ohmori) as a whole teaches everything as claimed above, see claim 1. In addition, Matsumoto teaches an image processing apparatus according to any one of claims 1, 3 and 4, further comprising a recorder for recording said plurality of screens of the still image signals in said recording medium (column 1 line 52-54).

17. Regarding **claim 5 (2)**, Matsumoto (modified by Okabayashi) as a whole teaches everything as claimed above, see claim 1. In addition, Matsumoto teaches an image processing apparatus according to any one of claims 1, 3 and 4, further comprising a recorder for recording said plurality of screens of the still image signals in said recording medium (column 1 line 52-54).

18. Regarding **claim 6**, which recites the corresponding method for the image processing apparatus of claims 1-5. Thus the analysis and rejection made in claims 1-5 also apply here because the processing apparatus in claims 1-5 would have necessarily performed the method of claim 6.

19. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okabayashi et al., US-6, 751,399 and in view of Matsumoto et al., US-7,177,523.

20. Regarding **claim 7**, Okabayashi teaches An image reproducing apparatus, comprising: a reproducer which sequentially reproduces an image signal of a plurality of frame recorded in a recording medium in accordance with an arbitrary time series (column 2 line 3-11); a frame renewer which renews frames to sequentially reproduced by said reproducer (Okabayashi teaches reproducing section that identifies the individual frames of the dynamic picture image information and the still picture image information stored in the image storage section and reproduces the identified frames of the dynamic picture and the image information and the still picture image information at reproduction speeds that are set, column 2 line 11-19); and a changer which changes said renewing interval to be shortened or prolonged in response to a predetermined operation when said predetermined operation is made during a sequential reproducing by said reproducer (Okabayashi teaches a still-picture reproduction period setting section that sets a reproduction period for the still picture image information, and the reproduction section reproduces the identified frame of the still picture image information respectively for the reproduction period set by the reproduction setting section, column 2 line 56-65. Further, speed setting sections 25 and 26 correspond to the operational entry functions of the operating section 10, CPU 11, etc. Tables 30 and 31 are prestored in the ROM 12, column 6 line 1-3. Dynamic-picture reproduction speed and still-picture reproduction speed designated via the speed setting sections 25 and 26 are stored into the respective reproduction speed storage section 27 and 28, column 6 line 9-12 and fig. 3. Therefore, it is clear to the examiner that Okabayashi teaches a reproduction period setting section that sets the period for reproducing an image, which

reads upon the claimed limitation). Okabayashi teaches the operating section includes various switches, volume controls, LEDs (Light Emitting Diodes) and a fader, and the section is used for selecting and setting various operational conditions of the device, such as start/stop of recording and reproduction modes and recordings and reproduction speeds of still and dynamic pictures (column 5 line 10-17, fig. 2).

21. Okabayashi is silent in regards to renewing wherein said frame renewer includes a first renewer which renews, when an operation for shortening said renewing interval is made by said changer, a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced, and a second frame renewer which renews, when an operation for prolonging said renewing interval is made by said changer, a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced with a renewing timing that the renewing interval between the frame currently being reproduced and a frame to be subsequently reproduced becomes equal to the renewing interval changed by said changer.

22. However, Matsumoto discloses wherein said frame renewer includes a first renewer which renews (column 5 line 9-14 and 37-46), when an operation for shortening said renewing interval is made (Matsumoto discloses where in an operation wherein images stored on a recording medium are sequentially read and reproduced by depressing the image feed switch 13, as the number of images have been fed is increased, the interval for feeding images (the interval for renewing a displayed image) is shorted, and image feeding performed at high speed is possible. In a more detailed

Art Unit: 2621

explanation for the image feeding operation of the invention the image feeding interval can be set at three levels: a low renewal interval, a medium renewal interval and a high renewal interval. A user can arbitrarily select a renewal interval by changing the initial key timer value, column 7 line 9-23. Therefore, it is clear to the examiner that Matsumoto discloses to shorten the renewal interval, as well to adjust the renewal interval, which reads upon the limitation), a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced (Matsumoto discloses where the images stored on a recording medium are sequentially read and reproduced by depressing the image feed switch, column 7 line 9-12. Since Matsumoto discloses the images stored and on a recording medium and are sequentially read and reproduced by depressing the image feed switch, therefore, it is clear to the examiner that by reproducing the images in sequential order it obvious that an accepted reproducing time is associated with a current frame, which reads upon the claimed limitation) , and a second frame renewer which renews, when an operation for prolonging said renewing interval is made by said changer (Matsumoto discloses the memory card 7 is a recording medium, and the present invention can be applied not only for the memory card 7, which employs a fixed memory as the main storage medium, but also another recording medium, such as an optical or magnetic disk or a magnetic tape, column 3 line 43-47. Further reproducing one image every 500 msec, every 500 msec, every 250 msec, and every 50 msec (column 5 line 37 to column 6 line 51. Further disclosed is for the images search operation during which image feeding, at a corresponding predetermined time intervals, is automatically continued by depressing

Art Unit: 2621

and hold down an image feed switch, the reproduction of an image depends merely upon the elapse of a specific time interval, column 1 line 28-33. The interval for renewing a displayed image) is shorted, and image feeding performed at high speed is possible. In a more detailed explanation for the image feeding operation of the invention the image feeding interval can be set at three levels: a low renewal interval, a medium renewal interval and a high renewal interval. A user can arbitrarily select a renewal interval by changing the initial key timer value, column 7 line 9-23. Therefore, it is clear to the examiner that Matsumoto discloses to adjust the renewal interval, which reads upon the limitation), a frame currently being reproduced at an accepting timing of the operation to a frame to be subsequently reproduced with a renewing timing that the renewing interval between the frame currently being reproduced and a frame to be subsequently reproduced becomes equal to the renewing interval changed by said changer (Matsumoto discloses where each time the image feed switch 13 is depressed (ON), the image on the display is shifted to the next image in the forward direction or, each time the image return switch 14 is depressed (ON), it is shifted to the preceding image in the backward direction. Further, when the image feed switch 13 or the image return switch 14 remains in the ON position for a period equal to or longer than a predetermined time period of time, all the images of the memory card 7 can be automatically and sequentially reproduced in the ascending order or in the descending order, while referring to their image numbers, their image file names and their image recording times, so that the image on the display can be continuously renewed, column 4 line 30-42. Therefore it is clear to the examiner that Matsumoto discloses to

Art Unit: 2621

sequentially reproduce a set of frames, while maintaining the renewal period equal to a period of reproduction, which reads upon the claimed limitation).

23. Therefore, taking the Image reproduction apparatus of Matsumoto with Okabayashi teaching of a volume control (dial) for adjusting the renewal intervals includes all claimed limitations.

24. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Okabayashi (modified by Matsumoto) for providing an apparatus that can accurately and quickly search for a desired image, regardless of the number of images recorded on a recording medium.

25. Regarding **claim 8**, Okabayashi (modified by Matsumoto) as a whole teaches everything as claimed above, see claim 7. In addition, Okabayashi teaches An image reproducing apparatus according to claim 7, wherein said changer includes a jog dial (volume control, column 5 line 10-15), and the operation for shortening said renewing interval is an operation that the jog dial is turned in a first direction, and the operation for prolonging said renewing interval is an operation that the jog dial is turned in a second direction that is different from the first direction (Okabayashi teaches a still picture reproduction period setting section that sets a reproduction period for the still picture image information (column 2 line 56-64). Further disclosed is operating section 10 includes various switches, volume controls, LEDs (Light Emitting Diodes), and a fader, and section 10 is used for selecting and setting various operation conditions of the device, such as start/stop recording and reproduction modes and recording and reproduction speeds of still and dynamic image, column 5 line 10-10 and fig. 2). Further,

Art Unit: 2621

the recording operation section and speed setting sections correspond to the operational entry functions of the operating section, CPU, etc. Tables stored are stored in the ROM (column 5 line 54 to column 6 line 3). It is implied from figure 2:10b that the volume controls would necessitate rotation in both clockwise and counter clockwise direction, which reads upon the claimed limitation.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA ROBERTS whose telephone number is (571)270-1821. The examiner can normally be reached on 7:30-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621
/Jessica Roberts/
Examiner, Art Unit 2621